OHIO DEPARTMENT OF TRANSPORTATION

TOAST

Traffic Operation Assessment Systems Tool

Overview

ODOT's mission is to provide easy movement of people and goods from place to place. To continue this mission, Ohio is focusing on a more operationally centered mindset for our transportation system. Through our Transportation Systems Management and Operations (TSMO) plan and program, we are working to maximize the efficiency and safety of our current transportation network.

To make data-driven decisions and determine operationally sensitive corridors throughout the state, the Office of Traffic Management developed the Traffic Operations Assessment Systems Tool (TOAST).

About the Tool

- Routes are segmented into the State Priority System with breaks at urban area boundaries, interchange center points, and road functional class changes. Where possible, data is provided directionally.
- Multiple Data Categories make up TOAST. For each category, data ranges were normalized into values of 0-10, then multiplied by a weighting factor.
- The total score for a route is calculated as a percent based on the score for each category divided by the total possible maximum score.

In general, the higher the percent, the better the route is performing, whereas the lower the percent, the more likely a route is to benefit from application of TSMO strategies.

Data Categories

Bottlenecks

A potential bottleneck is detected when speeds on a segment drop to 65% of reference speeds and cause at least a two-minute delay.

Pass-through:
any part of the bottleneck(s) impacts the corridor

Origination:
the bottleneck(s) begins in the corridor

Travel Time

Travel Time Performance:
Percent of time motorists can travel at or near (90%) of free-flow speed

Travel Time Index:
Ratio of the travel time during specific time of day periods to the time required to make the same trip at free-flow speeds

TSMO Safety

Rear End Percent
Percent of total crashes that are rear end

Crash Severity Impact
Impact of crashes based on severity

Traffic Incident Management

Incident Clearance
The time from report of an incident until the entire scene is cleared.

Secondary Crashes
Percent of crashes that occurred as a result of a previous incident.

Traffic Volume Data

Volume Per Lane
Volume of traffic per lane, calculated based on a weighted average for each segment.

Freight Corridors
Weighted average of percent trucks (avg. daily truck volume ÷ avg. daily total volume).